## NASA RANGE SAFETY PROGRAM 2005 ANNUAL REPORT

### Return-to-Flight – Hazard Risk Protecting KSC's Most Valuable Resource

The NASA Safety Manual, NPR 8715.3, specifically states safety priorities for the public, astronauts and pilots, the NASA work force, and high value equipment and property. The goal of Range Safety is to ensure safety by protecting human life and property from the hazards of flight operations. To meet this goal, the risk posed to human life and property must be evaluated as either acceptable or unacceptable.

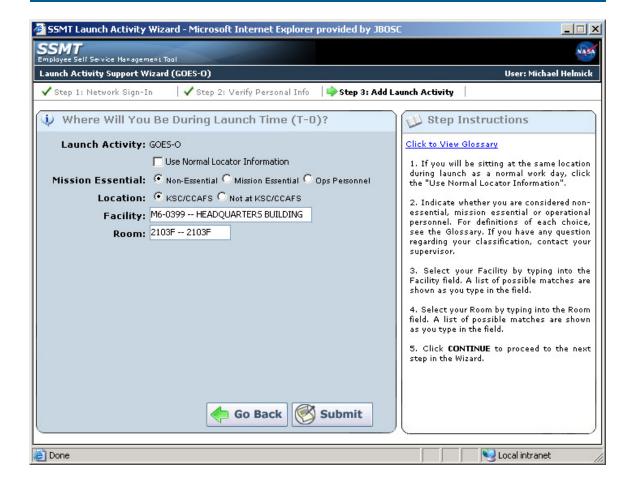
If management determines the risk is too high, then mitigations must be devised to lower the assessed risk to an acceptable level. Risk mitigation actions—based on debris, toxic, and far-field risk modeling results—must be implemented, monitored, and executed to contain the hazard.

### The Self-Service Management Tool

At KSC, a critical part of ensuring safety involves accurately identifying the location of personnel during normal and launch day operations. Knowing individual shift times—day, night, and weekend—is also important. The Self-Service Management Tool (SSMT) is one of the prime information sources for Range Safety analysts to use to assess risk to KSC personnel and property. The program has been updated and streamlined to accept an individual's location, the time of day, and mission status.

To access the SSMT database system, visit <a href="http://ssmt.ksc.nasa.gov/launchactivitywizard">http://ssmt.ksc.nasa.gov/launchactivitywizard</a>. Links are also provided to the Launch Activity Support Wizard from the KSC internal page and SSMT's home page. The graphic below shows the screen used to identify launch work location and mission status.

# NASA RANGE SAFETY PROGRAM 2005 ANNUAL REPORT



#### **Other Safety Considerations**

Along with the type of launch vehicle, this information about personnel is used with numerous other parameters, such as winds, building structures, and failure rates, required by range safety analysts to determine risk numbers. A recent survey was completed to update structural information of the top 20 "blast risk" facilities at KSC, most of which are located in the Launch Complex 39 area.

The continued use of the Self-Service Management Tool program greatly enhances the protection of KSC's most valued resource—its people.